

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
31 March 2005 (31.03.2005)

PCT

(10) International Publication Number  
**WO 2005/028097 A1**

(51) International Patent Classification<sup>7</sup>:  
C08F 2/01

B01J 19/18,

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(21) International Application Number:

PCT/EP2004/010375

(22) International Filing Date:

16 September 2004 (16.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

103 44 500.5 24 September 2003 (24.09.2003) DE  
60/529,037 12 December 2003 (12.12.2003) US

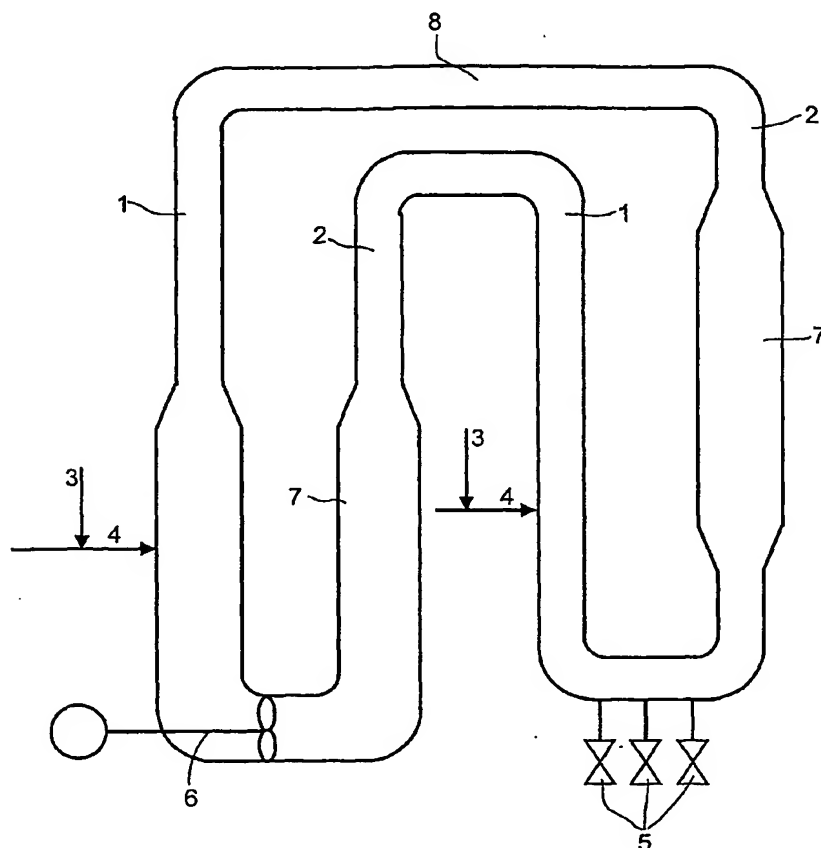
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

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[Continued on next page]

(54) Title: LOOP REACTOR WITH VARYING DIAMETER FOR OLEFIN POLYMERIZATION



(57) Abstract: Process for polymerizing at least one olefinic monomer in a loop reactor at from 20 to 150°C, but below the melting point of the polymer to be formed, and a pressure of from 5 to 100 bar, where the polymer formed is present in a suspension in a liquid or supercritical suspension medium and this suspension is circulated by means of an axial pump, wherein the loop reactor comprises a cyclic reactor tube whose diameter varies by at least 10%, based on the predominant reactor tube diameter, and in which there is at least one widening and narrowing in a region other than that of the axial pump.

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PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

— *with international search report*

**(84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

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